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SEQUENCE LISTING

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<120> GENE-TARGETED ANIMAL MODEL OF
APOLIPOPROTEIN E4 DOMAIN INTERACTION AND USES THEREOF

<130> UCAL-222

<140> 10/017,718
<141> 2001-12-14

<150> 60/276,861
<151> 2001-03-16

<160> 13

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 299
<212> PRT
<213> homo sapiens

<400> 1

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Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20                  25                  30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35                  40                  45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50                  55                  60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65                  70                  75                  80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85                  90                  95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100                 105                 110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Gly Gln
        115                 120                 125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130                 135                 140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145                 150                 155                 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165                 170                 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180                 185                 190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195                 200                 205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210                 215                 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
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225 230 235 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
245 250 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
260 265 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
275 280 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
290 295

<210> 2
<211> 299
<212> PRT
<213> baboon

<400> 2
Lys Val Glu Gln Pro Val Glu Pro Glu Thr Glu Pro Asp Val Arg Gln
1 5 10 15
Gln Ala Glu Trp Gln Ser Gly Gln Pro Trp Glu Leu Ala Leu Gly Arg
20 25 30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
35 40 45
Glu Glu Leu Leu Ser Pro Gln Val Thr Gln Glu Leu Thr Thr Leu Met
50 55 60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65 70 75 80
Gln Leu Ser Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
85 90 95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Arg
100 105 110
Ser Arg Leu Val Gln Tyr Arg Ser Glu Val Gln Ala Met Leu Gly Gln
115 120 125
Ser Thr Glu Glu Leu Arg Ala Arg Leu Ala Ser His Leu Arg Lys Leu
130 135 140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145 150 155 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Val Ser Ala
165 170 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
180 185 190
Ala Thr Val Gly Ser Leu Ala Ser Gln Pro Leu Gln Glu Arg Ala Gln
195 200 205
Ala Leu Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
210 215 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225 230 235 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Ser Leu Gln Ala Glu Ala
245 250 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
260 265 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
275 280 285
Ala Ser Thr Ala Pro Val Pro Ser Asp Asn His
290 295

<210> 3
<211> 299

<212> PRT
<213> CYNOMOLGUS MONKEY

<400> 3
Lys Val Glu Gln Pro Val Glu Pro Glu Thr Glu Pro Glu Leu Arg Gln
1 5 10 15
Gln Ala Glu Gly Gln Ser Gly Gln Pro Trp Glu Leu Ala Leu Gly Arg
20 25 30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
35 40 45
Glu Glu Leu Leu Ser Pro Gln Val Thr Gln Glu Leu Thr Thr Leu Met
50 55 60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65 70 75 80
Gln Leu Ser Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
85 90 95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Arg
100 105 110
Ser Arg Leu Val Gln Tyr Arg Ser Glu Val Gln Ala Met Leu Gly Gln
115 120 125
Ser Thr Glu Glu Leu Arg Ala Arg Leu Ala Ser His Leu Arg Lys Leu
130 135 140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145 150 155 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Val Ser Ala
165 170 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
180 185 190
Ala Thr Val Gly Ser Leu Ala Ser Gln Pro Leu Gln Glu Arg Ala Gln
195 200 205
Ala Leu Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
210 215 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225 230 235 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Ser Leu Gln Ala Glu Ala
245 250 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
260 265 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
275 280 285
Ala Ser Thr Ala Pro Val Pro Ile Asp Asn His
290 295

<210> 4
<211> 293
<212> PRT
<213> rat

<400> 4
Glu Gly Glu Leu Glu Val Thr Asp Gln Leu Pro Gly Gln Ser Asp Gln
1 5 10 15
Pro Trp Glu Gln Ala Leu Asn Arg Phe Trp Asp Tyr Leu Arg Trp Val
20 25 30
Gln Thr Leu Ser Asp Gln Val Gln Glu Glu Leu Gln Ser Ser Gln Val
35 40 45
Thr Gln Glu Leu Thr Val Leu Met Glu Asp Thr Met Thr Glu Val Lys
50 55 60
Ala Tyr Lys Lys Glu Leu Glu Glu Gln Leu Gly Pro Val Ala Glu Glu

65 70 75 80
Thr Arg Ala Arg Leu Thr Lys Glu Val Gln Ala Ala Gln Ala Arg Leu
85 90 95
Gly Ala Asp Met Glu Asp Leu Arg Asn Arg Leu Gly Gln Tyr Arg Asn
100 105 110
Glu Val Asn Thr Met Leu Gly Gln Ser Thr Glu Glu Leu Arg Ser Arg
115 120 125
Leu Ser Thr His Leu Arg Lys Met Arg Lys Arg Leu Met Arg Asp Ala
130 135 140
Asp Asp Leu Gln Lys Arg Leu Ala Val Tyr Lys Ala Gly Ala Gln Glu
145 150 155 160
Gly Ala Glu Arg Gly Val Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu
165 170 175
Val Glu Gln Gly Arg Gln Arg Thr Ala Asn Leu Arg Trp Arg Arg Pro
180 185 190
Ala Pro Arg Asp Arg Ala Gln Ala Leu Ser Asp Arg Ile Arg Gly Arg
195 200 205
Leu Glu Glu Val Gly Asn Gln Ala Arg Asp Arg Leu Glu Glu Val Arg
210 215 220
Glu Gln Met Glu Glu Val Arg Ser Lys Met Glu Glu Gln Thr Gln Gln
225 230 235 240
Ile Arg Leu Gln Ala Glu Ile Phe Gln Ala Arg Ile Lys Gly Trp Phe
245 250 255
Glu Pro Leu Val Glu Asp Met Gln Arg Gln Trp Ala Asn Leu Met Glu
260 265 270
Lys Ile Gln Ala Ser Val Ala Thr Asn Ser Ile Ala Ser Thr Thr Val
275 280 285
Pro Leu Glu Asn Gln
290

<210> 5
<211> 293
<212> PRT
<213> mouse

<400> 5
Glu Gly Glu Pro Glu Val Thr Asp Gln Leu Glu Trp Gln Ser Asn Gln
1 5 10 15
Pro Trp Glu Gln Ala Leu Asn Arg Phe Trp Asp Tyr Leu Arg Trp Val
20 25 30
Gln Thr Leu Ser Asp Gln Val Gln Glu Glu Leu Gln Ser Ser Gln Val
35 40 45
Thr Gln Glu Leu Thr Ala Leu Met Glu Asp Thr Met Thr Glu Val Lys
50 55 60
Ala Tyr Lys Lys Glu Leu Glu Glu Gln Leu Gly Pro Val Ala Glu Glu
65 70 75 80
Thr Arg Ala Arg Leu Gly Lys Glu Val Gln Ala Ala Gln Ala Arg Leu
85 90 95
Gly Ala Asp Met Glu Asp Leu Arg Asn Arg Leu Gly Gln Tyr Arg Asn
100 105 110
Glu Val His Thr Met Leu Gly Gln Ser Thr Glu Glu Ile Arg Ala Arg
115 120 125
Leu Ser Thr His Leu Arg Lys Met Arg Lys Arg Leu Met Arg Asp Ala
130 135 140
Asp Asp Leu Gln Lys Arg Leu Ala Val Tyr Lys Ala Gly Ala Arg Glu
145 150 155 160
Gly Ala Glu Arg Gly Val Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu
165 170 175

Val Glu Gln Gly Arg Gln Arg Thr Ala Asn Leu Gly Ala Gly Ala Ala
180 185 190
Gln Pro Leu Arg Asp Arg Ala Gln Ala Phe Gly Asp Arg Ile Arg Gly
195 200 205
Arg Leu Glu Glu Val Gly Asn Gln Ala Arg Asp Arg Leu Glu Glu Val
210 215 220
Arg Glu His Met Glu Glu Val Arg Ser Lys Met Glu Glu Gln Thr Gln
225 230 235 240
Gln Ile Arg Leu Gln Ala Glu Ile Phe Gln Ala Arg Leu Lys Gly Trp
245 250 255
Phe Glu Pro Ile Val Glu Asp Met His Arg Gln Trp Ala Asn Leu Met
260 265 270
Glu Lys Ile Gln Ala Ser Val Ala Thr Asn Pro Ile Ile Thr Pro Val
275 280 285
Ala Gln Glu Asn Gln
290

<210> 6
<211> 280
<212> PRT
<213> GUINEA PIG

<400> 6
Asp Val Glu Pro Glu Val Glu Val Arg Glu Pro Ala Val Trp Gln Ser
1 5 10 15
Gly Gln Pro Trp Glu Leu Ala Leu Ser Arg Phe Trp Asp Tyr Leu Arg
20 25 30
Trp Val Gln Thr Leu Ser Asp Gln Val Gln Glu Glu Leu Leu Ser Asn
35 40 45
Gln Val Thr Gln Glu Leu Thr Leu Leu Ile Glu Asp Thr Met Lys Glu
50 55 60
Val Lys Ala Tyr Lys Ala Glu Leu Glu Lys Glu Leu Gly Pro Val Ala
65 70 75 80
Glu Asp Thr Lys Ala Arg Leu Ala Lys Glu Leu Gln Ala Ala Gln Ala
85 90 95
Arg Leu Gly Ala Asp Met Glu Glu Val Arg Asn Arg Leu Ser Gln Tyr
100 105 110
Arg Ser Glu Val Gln Ala Met Leu Gly Gln Ser Ser Glu Glu Leu Arg
115 120 125
Ala Arg Leu Thr Ser His Pro Arg Lys Met Lys Arg Arg Leu Gln Arg
130 135 140
Asp Ile Asp Glu Leu Gln Lys Arg Met Ala Val Tyr Lys Ala Gly Ala
145 150 155 160
Gln Glu Gly Ala Glu Arg Gly Val Ser Ala Ile Arg Glu Arg Leu Gly
165 170 175
Ser Leu Ile Glu Gln Gly Arg Leu Gln Ala Leu Ala Ser Gln Pro Leu
180 185 190
Gln Glu Arg Ala Gln Ala Trp Gly Glu Gln Met Arg Gly Arg Leu Glu
195 200 205
Lys Val Gly Ser Gln Ala Arg Asp Arg Leu Glu Glu Val Arg Glu Gln
210 215 220
Met Glu Glu Val Arg Val Lys Val Glu Glu Gln Ala Glu Ala Phe Gln
225 230 235 240
Ala Arg Leu Lys Ser Trp Phe Glu Pro Met Met Glu Asp Met Arg Arg
245 250 255
Gln Trp Ala Glu Leu Ile Gln Lys Val Gln Val Ala Val Gly Ala Ser
260 265 270
Thr Ser Ala Pro Ser Gln Glu Pro

275 280

<210> 7
<211> 293
<212> PRT
<213> rabbit

<400> 7
Glu Thr Glu Gln Glu Val Glu Val Pro Glu Gln Ala Arg Trp Lys Ala
1 5 10 15
Gly Gln Pro Trp Glu Leu Ala Leu Gly Arg Phe Trp Asp Tyr Leu Arg
20 25 30
Trp Val Gln Ser Leu Ser Asp Gln Val Gln Glu Glu Leu Leu Ser Ser
35 40 45
Gln Val Thr Gln Glu Leu Thr Met Leu Met Glu Glu Thr Met Lys Glu
50 55 60
Val Lys Ala Tyr Lys Ser Glu Leu Glu Glu Gln Leu Ser Pro Met Ala
65 70 75 80
Gln Glu His Arg Ala Arg Leu Ser Lys Glu Leu Gln Val Ala Gly Ala
85 90 95
Leu Glu Ala Asp Met Glu Asp Val Cys Asn Arg Leu Ala Gln Tyr Arg
100 105 110
Gly Glu Ala Gln Ala Met Leu Gly Gln Ser Thr Glu Glu Leu Ala Arg
115 120 125
Ala Phe Ser Ser His Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg Asp
130 135 140
Ala Glu Asp Leu Gln Lys Arg Met Ala Val Tyr Gly Ala Gly Ala Arg
145 150 155 160
Glu Gly Ala Glu Arg Gly Val Ser Ala Val Arg Glu Arg Leu Gly Ser
165 170 175
Arg Leu Glu Arg Gly Arg Leu Arg Val Ala Thr Val Gly Thr Leu Ala
180 185 190
Gly Arg Pro Leu Arg Glu Arg Ala Gln Ala Trp Gly Glu Arg Leu Arg
195 200 205
Gly His Leu Glu Glu Val Gly Ser Arg Ala Arg Asp Arg Leu Asn Glu
210 215 220
Val Arg Glu Gln Val Glu Glu Val Arg Val Lys Val Glu Glu Gln Ala
225 230 235 240
Pro Gln Met Arg Leu Gln Ala Glu Ala Phe Gln Ala Arg Leu Lys Ser
245 250 255
Trp Phe Glu Pro Leu Val Glu Asp Met Gln Arg Gln Trp Ala Gly Leu
260 265 270
Val Glu Lys Leu Gln Ala Ala Met Pro Ser Lys Ala Pro Ala Ala Ala
275 280 285
Pro Ile Glu Asn Gln
290

<210> 8
<211> 298
<212> PRT
<213> cow

<400> 8
Asp Met Glu Gly Glu Leu Gly Pro Glu Glu Pro Leu Thr Thr Gln Gln
1 5 10 15
Pro Arg Gly Lys Asp Ser Gln Pro Trp Glu Gln Ala Leu Gly Arg Phe
20 25 30

```
Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Asp Gln Val Gln Glu
        35                  40                  45
Glu Leu Leu Asn Thr Gln Val Ile Gln Glu Leu Thr Ala Leu Met Glu
    50                  55                  60
Glu Thr Met Lys Glu Val Lys Ala Tyr Lys Glu Glu Leu Glu Gly Gln
65                  70                  75                  80
Leu Gly Pro Met Ala Gln Glu Thr Gln Ala Arg Val Ser Lys Glu Leu
                85                  90                  95
Gln Ala Ala Gln Ala Arg Leu Gly Ser Asp Met Glu Asp Leu Arg Asn
            100                 105                 110
Arg Leu Ala Gln Tyr Arg Ser Glu Val Gln Ala Met Leu Gly Gln Ser
        115                 120                 125
Thr Glu Glu Leu Arg Ala Arg Met Ala Ser His Leu Arg Lys Leu Pro
    130                 135                 140
Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Lys Lys Arg Leu Ala Val
145                 150                 155                 160
Tyr Gln Ala Gly Ala Ser Glu Gly Ala Glu Arg Ser Leu Ser Ala Ile
                165                 170                 175
Arg Glu Arg Phe Gly Pro Leu Val Glu Gln Gly Gln Ser Arg Ala Ala
            180                 185                 190
Thr Leu Ser Thr Leu Ala Gly Gln Pro Leu Leu Glu Arg Ala Glu Ala
        195                 200                 205
Trp Arg Gln Lys Leu His Gly Arg Leu Glu Glu Val Gly Val Arg Ala
    210                 215                 220
Gln Asp Arg Leu Asp Lys Ile Arg Gln Gln Leu Glu Glu Val His Ala
225                 230                 235                 240
Lys Val Glu Glu Gln Gly Asn Gln Met Arg Leu Gln Ala Glu Ala Phe
                245                 250                 255
Gln Ala Arg Leu Arg Ser Trp Phe Glu Pro Leu Val Glu Asp Met Gln
            260                 265                 270
Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Leu Ala Leu Arg Pro
        275                 280                 285
Ser Pro Thr Ser Pro Pro Ser Glu Asn His
    290                 295
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<210> 9
<211> 291
<212> PRT
<213> dog

<400> 9

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Lys Val Gln Gln Glu Leu Glu Pro Glu Ala Gly Trp Gln Thr Gly Gln
 1               5                  10                  15
Pro Trp Glu Ala Ala Leu Ala Arg Phe Trp Asp Tyr Leu Arg Trp Val
            20                  25                  30
Gln Thr Leu Ser Asp Gln Val Gln Glu Gly Val Leu Asn Thr Gln Val
        35                  40                  45
Thr Gln Glu Leu Thr Ala Leu Met Asp Glu Thr Met Lys Glu Val Lys
    50                  55                  60
Ala Tyr Lys Ala Glu Leu Asp Glu Gln Leu Gly Pro Met Thr Ser Glu
65                  70                  75                  80
Thr Gln Ala Arg Val Ala Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu
                85                  90                  95
Arg Ala Asp Met Glu Asp Val Arg Asn Arg Leu Thr Gln Tyr Arg Gly
            100                 105                 110
Glu Leu Gln Ala Met Leu Gly Gln Ser Ser Glu Glu Leu Arg Ala Arg
        115                 120                 125
Phe Ala Ser His Met Arg Lys Leu Arg Lys Arg Val Leu Arg Asp Ala
```

```
    130                 135                 140
Glu Asp Leu Gln Arg Arg Leu Ala Val Tyr Lys Ala Gly Val Arg Glu
145                 150                 155                 160
Gly Ala Glu Arg Ser Val Ser Ser Ile Arg Glu Arg Leu Trp Pro Leu
                165                 170                 175
Leu Glu Gln Ala Arg Glu Arg Asn Ala Lys Val Gly Ala Leu Ala Thr
            180                 185                 190
Gln Pro Leu Leu Glu Arg Ala Asp Ala Trp Gly Gln Gln Leu Arg Gly
        195                 200                 205
Gln Leu Glu Glu Met Ser Ser Arg Ala Arg Gly His Leu Glu Glu Met
    210                 215                 220
Arg Glu Gln Ile Gln Glu Val Arg Val Lys Met Glu Glu Gln Ala Asp
225                 230                 235                 240
Gln Ile Arg Gln Lys Ala Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp
                245                 250                 255
Phe Glu Pro Leu Leu Glu Asp Met Gln Arg Gln Trp Asp Gly Leu Val
            260                 265                 270
Glu Lys Val Gln Ala Ala Val Ala Thr Ile Pro Thr Ser Lys Pro Val
        275                 280                 285
Glu Glu Pro
    290
```

<210> 10
<211> 291
<212> PRT
<213> sea lion

<400> 10

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Glu Leu Glu Gln Glu Val Glu Pro Glu Ala Gly Trp Gln Ala Gly Gln
 1               5                  10                  15
Pro Trp Glu Leu Ala Leu Ala Arg Phe Trp Asp Tyr Leu Arg Trp Val
            20                  25                  30
Gln Thr Leu Ser Asp Gln Val Gln Glu Glu Val Leu Ser Asn Gln Val
        35                  40                  45
Thr Gln Glu Leu Thr Thr Leu Met Glu Glu Thr Met Lys Glu Ile Lys
    50                  55                  60
Ala Tyr Arg Ala Glu Leu Glu Glu Gln Leu Gly Pro Met Ala Ser Glu
65                  70                  75                  80
Thr Gln Ala Arg Val Ala Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu
                85                  90                  95
Arg Ser Asp Met Glu Asp Val Arg Thr Arg Leu Ser Gln Tyr Arg Gly
            100                 105                 110
Glu Val Gln Ala Met Leu Gly Gln Ser Thr Glu Glu Leu Arg Ala Arg
        115                 120                 125
Phe Ala Ser His Met Arg Lys Leu Arg Lys Arg Val Leu Arg Asp Ala
    130                 135                 140
Glu Asp Leu Gln Lys Arg Leu Ala Val Tyr Arg Ala Gly Val Arg Glu
145                 150                 155                 160
Gly Ala Glu Arg Ser Val Ser Thr Ile Arg Glu Arg Leu Trp Pro Leu
                165                 170                 175
Leu Glu Gln Ala Arg Thr Arg His Ala Lys Val Asp Ala Leu Ala Thr
            180                 185                 190
Gln Pro Leu Arg Glu Arg Val Asn Ala Leu Gly Gln Gln Leu Arg Gly
        195                 200                 205
Arg Leu Glu Glu Val Gly Ser Arg Ala Arg Ser His Leu Asp Glu Val
    210                 215                 220
Arg Glu Gln Met Glu Glu Val Gln Ala Lys Met Glu Glu Gln Ala Asn
225                 230                 235                 240
```

```
Gln Met Arg Gln Gln Ala Glu Ala Phe Gln Ala Arg Leu Lys Gly Trp
                245                 250                 255
Phe Glu Pro Leu Val Glu Asp Met Gln Arg Gln Trp Ala Val Leu Val
            260                 265                 270
Glu Lys Val Gln Ala Ala Val Gly Thr Ser Pro Thr Thr Pro Pro Val
        275                 280                 285
Glu Thr Lys
    290
```

<210> 11
<211> 14
<212> PRT
<213> dog

<400> 11

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Asp Val Gln Pro Glu Pro Glu Leu Glu Arg Glu Leu Glu Pro
 1               5                  10
```

<210> 12
<211> 16
<212> PRT
<213> sea lion

<400> 12

```
Asp Val Glu Pro Glu Ser Pro Leu Glu Glu Asn Leu Glu Pro Glu Leu
 1               5                  10                  15
```

<210> 13
<211> 4
<212> PRT
<213> sea lion

<400> 13

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Glu Pro Lys Arg
 1
```